APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,137	06/16/2006	Arnaud Bailleul	4590-535	1292

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EXAMINER
SMITH, CHENECA

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
06/07/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/583,137	BAILLEUL ET AL.
	Examiner	Art Unit	
	CHENECA SMITH	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 March 2011_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-8_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _6/16/2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March

16, 2011 has been entered.

2.   Claims 1-8 have been examined.

3.   Applicant's arguments with respect to claims have been considered but are moot

in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 2, 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being

unpatentable over by Lui et al, Rule –Based Detection of Inconsistency in UML Models,

2002 (*hereinafter Lui*), in view of Berenbach et al (US Patent 7,480,893 B2, *hereinafter*

Berenbach), both art already of record.

As to claim 1, Lui teaches a method for verifying rules on UML models (see Abstract - *we define a production system language and rules specific to software designs modeled in UML),* comprising:

establishing a model (see page 7, 1st paragraph – *we define UML constructs and inconsistency elements for production system* and page 8, 2nd paragraph - *we first define working memory elements for UML constructs and necessary information to represent inconsistencies and their resolution scheme),*

writing verification rules for a tool (*i.e. RIDE (Rule based Inconsistency Detection Engine),* see Fig.6 and associated text) for model manipulation (see page 7, 1st paragraph – *present rules that capture classes of inconsistencies from section 2* and 2nd paragraph – *a production system… uses rules, called production rules or productions in short, to represent its general knowledge and keeps an active memory, known as the working memory (WM), of facts (or assertions) which are called working memory elements (WMEs)),*

structuring data of the model as so to render the data utilizable by the tool for model manipulation (see page 7, last paragraph - *by converting an UML model to and from the production system representation, we can use the production system to check for inconsistencies and resolve them appropriately),*

producing using the tool for model manipulation a verification file based on the data and the verification rules (see page 8, 1st paragraph – *we use an approach similar o Argo/UML in that it delivers inconsistency notices to the user's workspace and have the user initiate the resolution and provide input data),* and

producing a verification report readable by a user on the basis of the verification

file (see page 12, 2nd paragraph – *as both the editor and the rule engine maintain their*

own representations of the UML model and inconsistency report, a synchronizer exists

to keep them identical; it sends changes of the editor's model to the rule engine and

delivers inconsistency report and modifications... back to the editor).

Lui does not specifically teach wherein the verification rules comprise verification

rules relating to calculation of progress metrics for the model. In an analogous art of

model verification, however, Berenbach is cited to teach wherein verification rules

comprise verification rules relating to calculation of progress metrics for the model (see

Fig.5B and associated text, e.g. col.6 lines 24-26, as well as col.5 lines 45-48 and col.6

lines 4-23. It would have been obvious to one having ordinary skill in the art at the time

of the invention to have modified the system of Lui to include the limitations as taught by

Berenbach in order to provide an improved system of model checking that would reduce

the overall design, development and testing costs, as suggested by Berenbach (see

col.1 lines 58-60).

As to claim 2, Lui also teaches wherein the verified rules are one at least of the

rules relating to the consistency of the model (see page 8, 2nd paragraph –

inconsistency rules that identify inconsistencies of designs).

As to claim 4, Berenbach further teaches wherein the report file produced by the

MIA tool (*i.e. modeling application*, see Fig.3, 301 and associated text) is in the XML

format (see col.7 lines 36-38 and line 45-46).

As to claim 5, Berenbach further teaches wherein the file in the XML format produced by the tool is converted into the XSLT format so as to be transformed into a document file of another appropriate format (see col.7 lines 36-38 and line 45-46).

As to claim 7, Berenbach further teaches wherein the report file produced by the MIA tool (*i.e. modeling application*, see Fig.3, 301 and associated text) is in the XML format (see col.7 lines 36-38 and line 45-46).

6.   Claims 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lui in view of Berenbach, as applied to claims 1 and 2 above, and further in view of Kovse et al, Generic XMI-Based UML Model Transformations, September 2002, (*hereinafter Kovse*).

As to claim 3, Lui in view of Berenbach teaches the limitations of claim 1, but does not specifically teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool. In an analogous art, however, Kovse is cited to teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool (see page 192 2nd paragraph – *a UML model mi is given; a human or software agent wants to transform mi, i.e. add, remove, or modify model elements to obtain a model i+1* and page 193 1st paragraph - *the agent produces an XMI document describing the transformation that has to be applied to obtain the model mi+1*). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the system of Lui in view of Berenbach to include the limitations as taught by Kovse in order to provide users with an improved technique

that would promote model reuse and also speed up the modeling process, as suggested by Kovse (see Conclusion page 196).

As to claim 6, Lui in view of Berenbach teaches limitations of claim 2, but does not specifically teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool. In an analogous art, however, Kovse is cited to teach wherein the file of the model, established in the UML format, is exported in the XMI format to the MIA tool (see page 192 2nd paragraph – *a UML model mi is given; a human or software agent wants to transform mi, i.e. add, remove, or modify model elements to obtain a model i+1* and page 193 1st paragraph - *the agent produces an XMI document describing the transformation that has to be applied to obtain the model mi+1*). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the system of Lui in view of Berenbach to include the limitations as taught by Kovse in order to provide users with an improved technique that would promote model reuse and also speed up the modeling process, as suggested by Kovse (see Conclusion page 196).

As to claim 8, Berenbach also teaches wherein the file in the XML format produced by the tool is converted into the XSLT format so as to be transformed into a document file of another appropriate format (see col.7 lines 36-38 and line 45-46).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENECA SMITH whose telephone number is (571)270-1651. The examiner can normally be reached on Monday-Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHENECA SMITH/   /Tuan Q. Dam/
Examiner, Art Unit 2192   Supervisory Patent Examiner, Art Unit 2192
6/2/11